

## **Building the Pipeline between education and industry: A message from Associate Commissioner Dale Winkler**

When it comes to supplying the needed employees for today's business and industry sector, most business leaders recognize and demand a well-educated workforce; an education that really begins in high school and carries on to the postsecondary level.

As more highly skilled manufacturing jobs are becoming available, the realization that there is a shortage of a new generation of skilled workers has prompted many businesses to "grow their own."

Training a workforce from scratch, however, takes time and resources. That's something often in short supply in a still somewhat shaky economy where a business must maintain the ability to grant the needs of its customers quickly and efficiently or risk losing that customer to a competitor.

While these workplace training ventures have helped to some degree, perhaps the ideal solution is to catch students at the high school level and introduce them to the world of possibilities from advanced manufacturing to engineering to healthcare and information technology, to name a few. Reaching them at this level gives students real insight as to just what kind of jobs there are and how much those jobs pay while dispelling some misconceptions of some of those jobs, especially industrial occupations.

But getting a foundation at the secondary level is only a start as many, if not most human resource managers look for perspective employees with some sort of postsecondary training. That could mean a four-year bachelor's degree, a two-year associate degree, an apprenticeship or some other type of on-the-job training experience.

In order to build this educational/training pipeline, a partnership between the educational entities and industrial leaders needs to be fostered or created in order to supply a needed workforce to drive the local community's economic engine.



Reaching students at the high school level gives them real insight as to just what kind of jobs there are and how much those jobs pay while dispelling some misconceptions of some of those jobs, especially industrial occupations.

## Establishing the need

As unemployment numbers remain relatively high, it may be difficult to substantiate the critical need many companies have for skilled employees. The optimum word is “skilled,” and business leaders recognize the necessity of a well-educated perspective employee.



Kentucky has 95 high school career and technical centers or area technology centers that provide dozens of career education programs serving as a choice for students who are interested in Career and Technical Education (CTE) programs.

A recent study conducted in an eight-county region in northern Kentucky showed a significant number of jobs that are and will be available mostly due to a large number of current employees retiring.

That study calculates that 680 positions are available with an estimated 2,500 coming up in three years and 6,250 skilled positions in the next 10 years.

The pay for these jobs ranges from \$40,000 to \$60,000 per year. So, as one executive put it, these are highly skilled, high paying jobs with good benefits. These are not the factory jobs of a past generation.

Through similar studies like the one in northern Kentucky and the state’s Sector Strategy initiative, which have recognized five separate areas of need and projected job growth throughout Kentucky, the existing evidence points to not only the need for a skilled workforce but what areas in which they will be needed.

## Comprehensive SREB study

Workforce training doesn’t necessarily have to begin after high school; in fact, some studies have suggested that even middle school students need to be provided career education if they are to have the adequate knowledge to make choices at the high school level.

Kentucky has 95 high school career and technical centers or area technology centers that provide dozens of career education programs serving as a choice for students who are interested in Career and Technical Education (CTE) programs.

KDE recently commissioned a study conducted by the Southern Regional Education Board to evaluate the state’s secondary CTE sector and make recommendations on how to move that system into a world-class status.

Kentucky has been on the cusp of having one of the largest, most comprehensive systems in the country, but the report takes a hard look at a somewhat antiquated system and recognized four over-arching recommendations to bring it up to date, not only from an educational standpoint, but from an economic development perspective, as well.

The report notes, “A strong partnership with postsecondary education and business and industry is essential to creating a world-class system of technical centers.”

It recommends an alignment of CTE offerings with workforce needs by economic regions that would coincide with the five targeted industry sectors identified by the Kentucky Workforce Investment Board.

### **Existing Resources**

If Kentucky were a place barren of educational entities and few business and industry opportunities, a conversation about building and maintaining an employee pipeline would not be necessary.

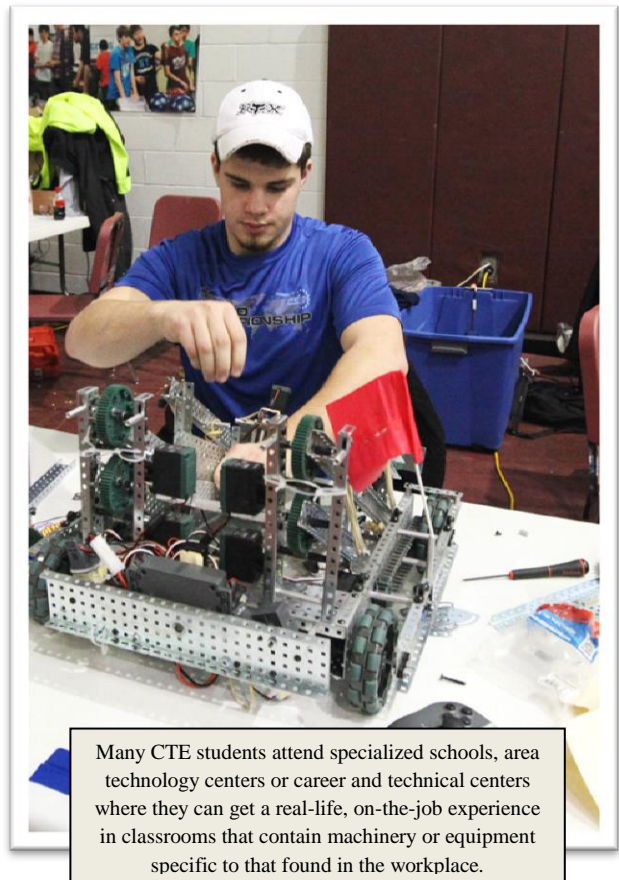
Fortunately that is not the case. From a secondary education standpoint, more than 140,000 students (roughly 75 percent) are enrolled in some sort of CTE class or program.

In many cases, these students attend specialized schools, area technology centers or career and technical centers where they can get a real-life, on-the-job experience in classrooms that contain machinery or equipment specific to that found in the workplace.

Many of these schools have local business and industry advisory board members that continually update students and administrators as to what their needs are and what kind of educational efforts are needed to meet local job requirements.

At the next level, Kentucky has one of the most comprehensive community and technical college systems in the country.

The Kentucky Community and Technical College System (KCTCS) consists of 16 colleges and more than 70 campuses throughout the state. For many of the programs offered at KCTCS, there are articulation agreements with their secondary counterparts that keep students from replicating classes.



There also exists a statewide dual credit agreement between the two systems allowing students at the high school level to gain college credit for certain programs.

If there is such a thing as a “gold mine” when it comes to educational and workforce opportunities, Kentucky is sitting on top of one. The challenge now is to recognize it and take advantage of those opportunities.

### **Changing an image**

While industry works to change the image of old style factories verses modern manufacturing facilities, the CTE sector that is or should be the training grounds for these industries, fights the old vocational school image that many individuals possess.



There are initiatives to combat that, however. Educationally, the Office of Career and Technical Education (OCTE) and KCTCS have begun a marketing campaign aimed at showcasing community college programs using former secondary

CTE students while at the same time giving students a visual look at the available programs.

As part of that initiative, the “Reach Higher with CTE” marketing campaign was created using existing resources to help change the mindset some parents, students, teachers and administrators have when it comes to CTE and what really exist today; programs steeped deep in technology from traditional welding programs to high-tech computer-aided drafting classes.

The key component of the marketing effort will be the use of students to relay the CTE message to their peers and community members. This “ambassador” portion of the initiative will use Career and Technical Student Organization officers to speak at various events in their local schools and communities.

A series of visual aids also is being developed to use on websites and in social media venues.



But marketing programs are not just being initiated at the high school and college levels. The Northern Kentucky Industrial Park (NKIP) Industry Partnership has developed the “Dream It, Do It” program focused toward area high school students. The campaign was designed to get these students interested in the opportunities available to them through advanced manufacturing jobs complete with videos and its own ambassador program.

### **The need for increased funding**

While the SREB study examined many areas related to CTE, and made many recommendations, there are a few points of note, one being that of alignment gaps between existing CTE programs offered at the 95 centers and workforce needs both at the state level and by economic regions.

Strong support for CTE is critical in closing these gaps. The SREB report noted how important that support can be and also recommended increased funding for CTE programs.

A recent report from the National Association of State Directors of Career and Technical Education noted that several states, including some of Kentucky’s neighboring states have requested increased funding for their CTE programs in recognizing their business and industry needs.

Kentucky has stepped up to the plate during this year’s budget session of the General Assembly which included funding for vacant teacher positions in state CTE schools as well as across-the-board raises for state employees.



It will take both high-tech and traditional CTE programs to supply a student with the general foundation needed to compete for jobs of the present and future.

This is welcomed news and certainly a move in the right direction. It’s important that our lawmakers and stakeholders in CTE understand we must fund these programs adequately as much for the economic wellbeing of the state as for the educational benefit of our students.

We are living in very competitive times and our neighboring states will gladly take business and industry away from Kentucky if the opportunity presents its self. That has happened in the past but should never happen in the future due to an inadequate work force caused by funding deficiencies.

The legislature has also included seed funding to further study the idea of a new technical high school to be located in Northern Kentucky. If this idea comes to fruition it will mark a new era in CTE for the state by creating a unique facility focusing on career training while still providing all the necessary educational components that would allow students to become college and career ready.

## **Kentucky set to take the lead**

With all the necessary components in place to build a sustainable education-to-work pipeline, Kentucky is poised to be a national leader in career training at both the secondary and postsecondary levels allowing students to transition from one to the other and ultimately to the workplace, trained in the specific areas needed in their communities.

In Northern Kentucky for instance, a number of advanced manufacturing training programs are present in many of the area's technical high schools, both of a high tech-nature and traditional, as well.

It will take both to supply a student with the general foundation needed to compete for these jobs of the present and future.

Northern Kentucky also is home to one of the most advanced postsecondary manufacturing training facilities in the country by way of Gateway Community and Technical College's Center for Advanced Manufacturing.

The center, which opened in 2005, has the capability of training hundreds of students each year in program areas such as computer-assisted drafting, electrical technology, industrial maintenance technology, computerized manufacturing and machining, manufacturing engineering technology, mechatronics, welding technology and energy technology.

With comprehensive workforce studies in place, educational leaders don't have to justify the need for technical training; it exists already. With training programs in place at the secondary and postsecondary levels, the wheel does not have to be reinvented when it comes to providing the necessary programs needed by students to learn the skills required by these available manufacturing jobs.

All that needs to be done now is to take advantage of the opportunities that have been created at both local and state levels.

To borrow a popular saying from a movie, "If you build it, they will come;" the field has been built; business/industry has partnered with educational leaders to make the necessary investments in programs; and efforts are being made to market these opportunities to students across the state.

Once this giant education-to-work engine is running at full capacity, the possibilities will be endless for both students and the business and industry community.

Sincerely,

Dale Winkler  
Associate Commissioner  
Office of Career and Technical Education